310858

July 2, 2008

Mr. Michael J. Erickson SR-6J
Associate Vice President/Principal Engineer
ARCADIS
10559 Citation Drive, Suite 100
Brighton, MI 48116

RE: Revised Draft Generalized Conceptual Site Model

Dear Mr. Erickson:

The United States Environmental Protection Agency (U.S. EPA) has completed its review of the April 2008 revised draft Generalized Conceptual Site Model (CSM) for the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site.

The revised draft CSM is substantially improved from the original version. However, there are still areas where conclusions are drawn without adequate supporting information or discussing the limitations of existing data. Specific conclusions regarding Aroclor distribution and fish tissue concentrations need to be clarified.

Therefore, U.S. EPA disapproves the revised CSM pending receipt of adequate responses to the enclosed comments and a final CSM document incorporating the changes. KRSG must submit responses to the comments and a final CSM document within (45) forty-five days of receipt of this letter.

Please contact me at (312) 886-0992 if you have any questions regarding this matter.

Sincerely,

James A. Saric
Remedial Project Manager
SFD Remedial Response Branch #1

Enclosure

cc: Paul Bucholtz, MDEQ
David Guier, Millennium Holdings
Chase Fortenberry, Georgia-Pacific

bcc w/enclosure:
Jeff Keiser, CH2MHILL

Bcc w/o enclosure:
Eileen Furey, ORC
Nicole Wood, ORC

U.S.EPA COMMENTS
ON THE REVISED
GENERALIZED CONCEPTUAL SITE MODEL
ALLIED PAPER, INC./PORTAGE CREEK/KALAMAZOO RIVER SITE

SPECIFIC COMMENTS

Commenting Organization: U.S. EPA Commentor: Saric
Original Specific Comment #: 4
Revised Comment: 1

Page 1-10, Section 1.3, 5th paragraph. Based on USEPA Original Specific Comment #4, the text in the CSM was revised to:

"Since then, characteristics of PCB transport have shifted emphasis to resupply from the exposed former sediments in the former impoundments and from the sediment bed to the water column in many areas of the river."

This revision addresses the contribution from floodplain inundation, but not groundwater.

Commenting Organization: U.S. EPA Commentor: Saric
Original Specific Comment #: 6
Revised Comment: 2

Page 1-11, Section 1.4, 2nd paragraph. The revised text states:

"The composition of PCBs in fish and sediment samples from the Site indicate that while the Kalamazoo River Study Group (KRSG)'s paper recycling facilities have contributed PCBs to the Kalamazoo River system, there is evidence that there are sources of PCBs other than paper recycling. The majority of the PCBs in fish samples from Bryant Mill Pond (adjacent to the Allied Paper, Inc. OU) have been quantified as Aroclor 1242,

which is the primary PCB mixture found in the carbonless copy paper that was historically recycled by Kalamazoo Valley paper mills. In contrast, nearly 100% of the PCBs in fish collected from Morrow Lake, which is upstream of the Site and all KRSG facilities, are quantified as Aroclors 1254 and 1260 – Aroclors that cannot be attributed to paper recycling. Fish collected in the former Trowbridge Impoundment, which is within the Site, contain PCBs quantified as both Aroclor 1242 and Aroclor 1254, indicating a combined influence of both paper and non-paper sources of PCBs."

The text has not been revised in response to USEPA Original Specific Comment #6:

"The discussion of PCB sources and PCB composition in fish is not supportable by Aroclor analyses. The appearance of a particular Aroclor in a fish sample does not mean that the fish has the congener composition of that Aroclor, and the proportional Aroclor composition in fish samples cannot be directly attributed to different Aroclor sources."

The other discussions related to source allocation and fingerprinting based on Aroclor data that were included in the draft CSM appear to have been deleted or revised.

Commenting Organization: U.S. EPA Commentor: Saric
Original Specific Comment #: NA
Revised Comment: 3

Page 4-2, Section 4.1. This section states "In general, the PCB concentrations throughout the river are
low ..."

a. This section should be limited to a description of PCB distributions and concentrations, without including an opinion about the significance of the measured concentrations.

b. The discussion of sampling results from 1993/94 is misleading in that its treatment of the data appears to be designed to support the conclusion presented

in the first sentence that concentrations are generally low.

Commenting Organization: U.S. EPA Commentor: Saric
Original Specific Comment #: NA
Revised Comment: 4

Page 4-6, Section 4.3, 3rd paragraph:

a. This text states "In 2001, USEPA conducted Phase I and Phase II sampling in the former Plainwell Impoundment to provide additional measurements of PCBs in the exposed sediment at locations intentionally biased toward areas of elevated PCB…"

MDEQ had commented (PCB Sediment Data – Section 4.3) that representing the USEPA 2001 sample design as biased was inaccurate.

b. This paragraph goes on to conclude that "This suggests that the distribution of PCB concentrations may be adequately represented by sampling programs that provide uniform coverage rather than targeted sampling approaches since available data indicate these small pockets of relatively high concentrations (i.e. "hot spots") are present only on a limited spatial extent."

However, KSRG's response indicated that they would revise this paragraph to indicate that "the average concentration did not change significantly as a result of the additional focused sampling efforts conducted following the systematic sampling program implemented in 1993/1994."

There are several places in Section 4.3 where KSRG appears to be laying the groundwork for justifying uniformly-spaced, unbiased sampling approaches for

future sampling efforts. This conclusion is not appropriate for a CSM document. The rationale and justification for a particular sampling approach should be provided in area-specific SAPs.

Commenting Organization: U.S. EPA Commentor: Saric
Original Specific Comment #: 11
Revised Comment: 5

Page 4-11, Section 4.5, 3rd paragraph. The revised text states:

"On a lipid-adjusted basis, PCB concentrations in carp in Kalamazoo Lake are approximately the same as in Morrow Lake, and lipid-adjusted PCB concentrations in smallmouth bass at three of the six sampling stations within the Site are lower (and the other three locations higher) than in Morrow Lake. This comparison of fish PCB concentrations below Morrow Dam to those in Morrow Lake suggests that PCB bioavailability to smallmouth bass in a portion of the Site is similar or less than in Morrow Lake."

This revision to address USEPA Original Specific Comment #11 indicates that at half of the sampling stations, the lipid-adjusted PCB concentrations in smallmouth bass are higher. The conclusion seems incomplete and misleading in that it only indicates that bioavailability is similar or less than in Morrow Lake.